

withdrawal conduit in fluid communication with the reservoir, a jet ejector connected in said withdrawal conduit and adapted to be coupled to an associated source of pressurized gas for creating suction in said withdrawal conduit, said jet ejector being capable of evacuating gas at a much greater rate than it evacuates liquid from said withdrawal conduit, sample collection means including a vessel disposable in fluid communication with said withdrawal conduit between the reservoir and said jet ejector, said jet ejector evacuating gas from said withdrawal conduit and from said vessel and aspirating a column of liquid through said withdrawal conduit from the reservoir, and means for introducing a flow of gas into said withdrawal conduit upstream from said sample collecting means, whereby when a column of liquid in said withdrawal conduit reaches said jet ejector the pressure in said withdrawal conduit increases to cause liquid to flow into said vessel and said gas introduction means forms a column of gas in said withdrawal conduit behind said column of liquid for interrupting the withdrawal of liquid from the reservoir.

9. The apparatus of claim 8, wherein said sample collection means includes a cannula in communication with said withdrawal conduit, and a bottle closed by a self-healing septum for piercingly receiving said cannula to provide communication between said withdrawal conduit and said vessel.

10. The apparatus of claim 9, wherein said cannula has two piercing ends, said sample collection means including a self-healing septum carried by said withdrawal conduit for piercingly receiving one end of said cannula.

11. The apparatus of claim 8, and further including return conduit means providing communication between said jet ejector and the reservoir for cooperation with said withdrawal conduit to form a closed loop for returning excess liquid to the reservoir.

12. The apparatus of claim 11, wherein said sample collection means is disposed at a sample collection station, and further including means isolating said sample collection station from the reservoir.

13. The apparatus of claim 12, wherein said jet ejector is disposed at said sample collection station.

14. The apparatus of claim 12, and further including remote manipulation means operable from a control station for manipulating said sample collection means, and means isolating said control station from said sample collection station.

15. The apparatus of claim 12, and further including control valve means for controlling the flow of gas to said jet ejector and to said gas introducing means, and means isolating said control means from said sample collection station.

16. A method for withdrawing a sample of liquid from a reservoir through a conduit toward a suction port and into a sample collection vessel in fluid communication with the conduit at a collection point upstream of the suction port, said method comprising the steps of: reducing the pressure at the suction port for evacuating gas from the conduit and from the sample collection vessel and for aspirating a column of liquid from the reservoir through the conduit, and forming a column of gas in the conduit upstream of the sample collection vessel to increase pressure and interrupt the column of liquid when the aspirated liquid reaches the suction port, thereby causing liquid to flow into the vessel until the pressure in the vessel is in equilibrium with the pressure in the conduit or until the column of gas reaches the vessel.

17. The method of claim 16, wherein the pressure in the conduit is reduced by passing a high-velocity stream of gas past the suction port.

18. The method of claim 17, and further including the step of returning the stream of gas and excess liquid to the reservoir.

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